

BUREAU OF DESIGN AND ENVIRONMENT MANUAL

Chapter Twenty-Four ENVIRONMENTAL ASSESSMENTS

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CHAPTER TWENTY-FOUR ENVIRONMENTAL ASSESSMENTS

Chapter 24 discusses procedures for preparing and processing Environmental Assessments.

24-1 GENERAL

24-1.01 Definitions

1. <u>Environmental Assessment (EA)</u>. 40 CFR 1508.9 defines an Environmental Assessment as:

... a concise public document for which a Federal agency is responsible that serves to briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.

2. <u>Finding of No Significant Impact (FONSI)</u>. 40 CFR 1508.13 defines a FONSI as:

... a document by a Federal agency briefly presenting the reasons why an action, not otherwise excluded, will not have a significant impact on the human environment and for which an environmental impact statement therefore will not be prepared.

24-1.02 Applicability

24-1.02(a) EA

References: 40 CFR 1501.3 When to Prepare an Environmental Assessment

40 CFR 1501.4(b) When to Prepare an Environmental Assessment

23 CFR 771.115(c) Definition of Class III (EA) Action

23 CFR 771.119(a) When to Prepare an Environmental Assessment

Question 40. of CEQ Q&A Mitigation of Significant Impacts - Appropriateness of

EΑ

In general, as stated in the cited references, an EA will be prepared for all actions in which the significance of the environmental impact is not clearly established. The FHWA Illinois Division Office has identified the following specific project types which typically will be processed with an EA:

- new interchanges,
- new (two-lane) bypasses, and
- projects involving organized opposition or substantial controversy on environmental grounds but which do not obviously require the preparation of an EIS.

In general, proposed actions which meet the Department's Project Scope of Work definition of "reconstruction" also are candidates for EA processing (see Chapter 31). Examples include converting an existing two-lane facility to a four-lane divided facility and making changes to the existing horizontal and vertical alignment for a substantial length of highway.

24-1.02(b) FONSI

References: 40 CFR 1501.4(e) When to Prepare a FONSI

23 CFR 771.119(g) FONSI Recommendation 23 CFR 771.121(a) When to Prepare a FONSI

As stated in the cited references, a FONSI will be prepared for all actions for which the EA does not identify a significant impact to the environment.

24-1.03 EA/FONSI Validity

References: Section 22-3.15 Ensuring Validity of Environmental and Design Documents

Approvals for projects processed with an Environmental Assessment/FONSI generally may be considered valid for a period of three years from the date of issuance by the FHWA. This provision is subject to the requirements for ensuring the validity of environmental and design documents as stated in Section 22-3.15. If major steps to advance the action (e.g., authority to undertake final design, authority to acquire a significant portion of the right-of-way, or approval of plans, specifications, and estimates) have not occurred within this time frame, a written evaluation should be prepared. Before undertaking a written evaluation, the district office should discuss the project and its history with BDE and FHWA representatives, preferably at district coordination meetings.

The written evaluation should be in the format of an abbreviated Environmental Assessment and shall address the presence or absence of significant changes in:

- the proposed action,
- the affected environment,
- the anticipated impacts, and
- proposed mitigation measures.

Preparation of the written evaluation and review by BDE and FHWA should follow the normal procedures used in preparing Environmental Assessments (see Section 24-2). Based on the re-evaluation of the EA, the district, in conjunction with BDE and FHWA, will determine whether changes in the project or new information warrant additional public involvement. For projects involving restricted time schedules or other limiting factors, special arrangements may be necessary; in such cases, contact BDE for guidance.

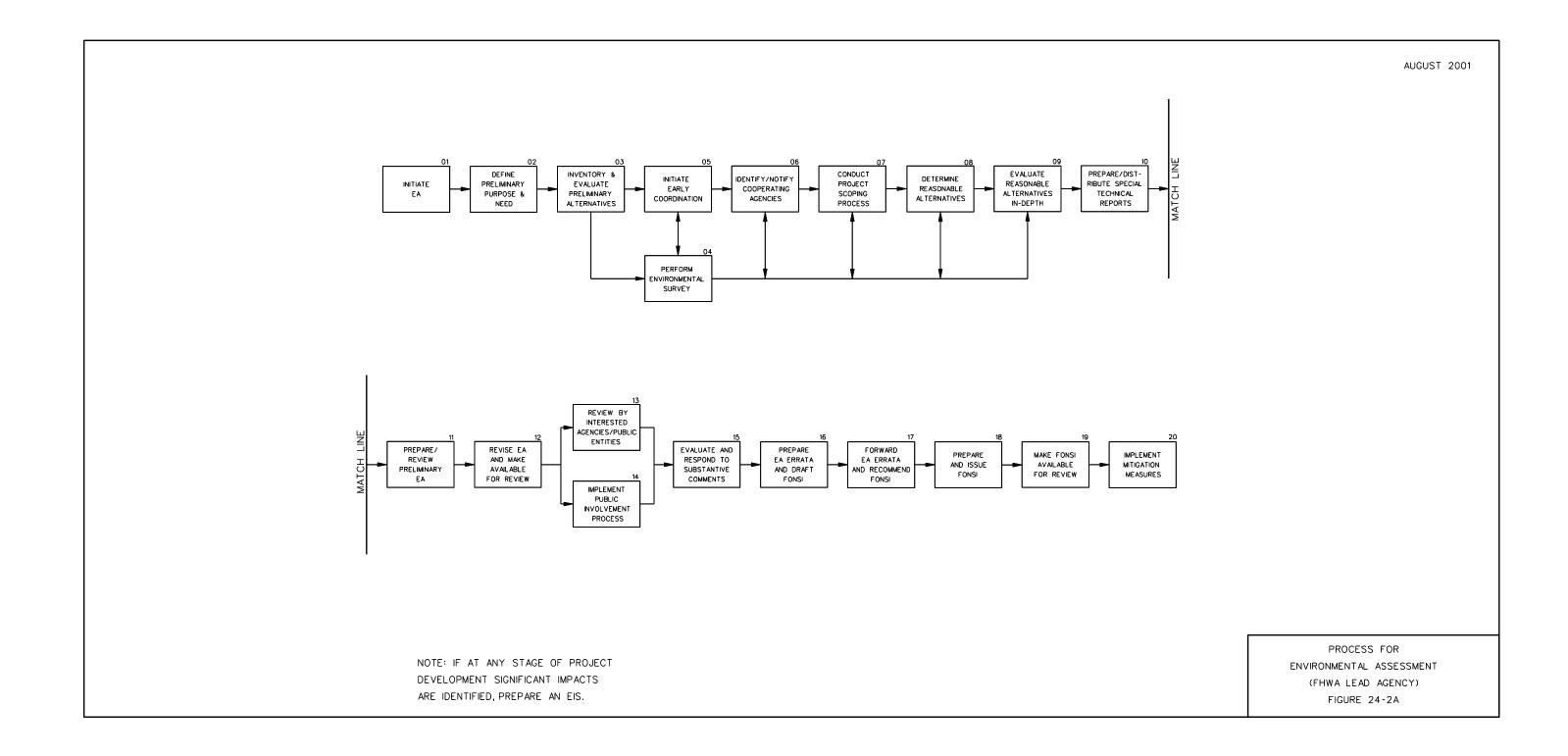
If significant changes have not occurred, the approved EA/FONSI will still be applicable. Project files should be documented accordingly. A copy of the final version of the written evaluation will be sent by BDE to the FHWA Division Office.

If significant changes have occurred, a new EA or other appropriate environmental document should be prepared and processed in accordance with current requirements. If any significant environmental impacts are identified, preparation of an EIS should be initiated. Coordination with interested or affected agencies or individuals should be undertaken as necessary; the results should be summarized and documented in any written evaluation, EA, or EIS prepared.

24-2 THE EA PROCESS

Figure 24-2A presents a network which graphically illustrates the general process for an action processed with an Environmental Assessment. This is followed by a brief description of each activity within the network. The user of Figure 24-2A should consider the following:

- 1. <u>Lines of Communication</u>. The rigid application of the network would lead to predetermined, precise points at which communication occurs between units. This is neither realistic nor desirable. Communication between units must be continuous. This will result in fewer problems and fewer "surprises" in the process.
- Lead Agency. Figure 24-2A assumes that the Federal Highway Administration is the lead agency for FHWA-funded projects. If another Federal agency is the lead agency, other procedures may be required.
- 3. <u>Application</u>. Figure 24-2A applies to all EA projects involving State highways regardless of the source of funding.
- 4. <u>References</u>. Some of the references in the Activity descriptions are to 40 CFR 1500 excerpts which are specifically applicable to actions processed with an Environmental Impact Statement. Although not explicit in the Federal regulation, these references are also applicable to Environmental Assessments.
- 5. <u>EIS</u>. If at any stage of the EA process significant impacts are identified, it will be necessary to prepare an EIS (see Chapter 25).
- 6. <u>Sequencing/Duration</u>. Figure 24-2B presents a bar chart for the EA process which provides approximate relative sequencing and duration for each activity within the process.



Act. No.	Activity Title	Sequencing and Duration
01	Initiate EA	→
02	Define Preliminary Purpose & Need	Modify as necessary as project develops
03	Inventory & Evaluate Preliminary Alternatives	
04	Perform Environmental Survey	
05	Initiate Early Coordination	Continue Coordination
06	Identify/Notify Cooperating Agencies	Continue Involvement of Cooperating Agencies
07	Conduct Project Scoping Process	
08	Determine Reasonable Alternatives	
09	Evaluate Reasonable Alternatives In-Depth	
10	Prepare/Distribute Special Technical Reports	
11	Prepare/Review Preliminary EA	
12	Revise EA and Make Available for Review	
13	Review by Interested Agencies/Public Entities	
14	Implement Public Involvement Process	Ongoing Public Involvement
15	Evaluate and Respond to Substantive Comments	
16	Prepare EA Errata and Draft FONSI	
17	Forward EA Errata and Recommend FONSI	
18	Prepare and Issue FONSI	
19	Make FONSI Available for Review	
20	Implement Mitigation Measures	→

Key: Primary Activity
Ongoing As Needed

Public Hearing, if Held

SEQUENCING/DURATION FOR ENVIRONMENTAL ASSESSMENT PROCESS

Activity Title: Initiate EA

Activity No.: 01

Responsible Unit: District Office

Activity Description:

For actions that will ultimately be processed with an EA, this is often known at the time of project initiation. This network for the EA process (Figure 24-2A) assumes it is known at the time of project initiation that an EA will be required.

The district will initiate the EA by assigning a team; discussing the project at a coordination meeting, which should include obtaining FHWA concurrence in the appropriateness of preparing an EA for the project; and assembling information which may include:

- planning reports or studies,
- record plans (as-builts),
- letters/correspondence on the project,
- traffic data,
- documentation on any public or private meetings,
- original surveys,
- aerial photos,
- statistical data documenting need for improvement,
- scoping data providing recommended improvement,
- Maintenance Management Information System (MMIS) data,
- appropriate information from engineering and Department databases.
- verification that the project is included in the applicable Transportation Improvement Program/State Transportation Improvement Program,
- existing right-of-way.
- information and decisions from the programming process, and
- results of the preliminary field check of project location.

- 40 CFR 1501.2 Early Application of NEPA
- 40 CFR 1501.3 When to Prepare an Environmental Assessment
- 23 CFR 771.115(c) Definition of Class III (EA) Action
- Section 22-3.06 Proposed Action
- Section 24-1 General

Activity Title: Define Preliminary Purpose and Need

Activity No.: 02

Responsible Unit: District Office/BDE/Office of Planning and Programming/FHWA

Activity Description:

For a transportation action which will be processed with an EA, the district must define the purpose of and need for the action to provide the basis for making a preliminary selection of alternatives (Activity 03) for evaluation. This will be an evolutionary process, and the district must coordinate with the other responsible units. The cited references provide critical guidance in defining the purpose and need, especially Section 22-6.01.

- Paragraph II.B. of FHWA Technical Advisory T6640.8A Purpose and Need for Action
- Section 22-6.01 Purpose and Need
- Section 22-4 Concurrent NEPA/404 Processes

Activity Title: Inventory & Evaluate Preliminary Alternatives

Activity No.: 03

Responsible Unit: District Office/BDE/FHWA

Activity Description:

Based on the definition of the preliminary purpose of and need for the action (Activity 02) and the general design concept presented in a Major Investment Study, if applicable, the district office with technical assistance from BDE and FHWA will inventory the affected environment and evaluate the preliminary alternatives as practical at this stage of project development. This will be an evolutionary process as the alternatives become more definitive and as more information is gathered in the environmental surveys (Activity 04). The evaluation of preliminary alternatives should be sensitive to those environmental resources for which analysis of alternatives for avoidance and minimization of adverse impacts is required (e.g., wetlands, flood plains, Section 4(f) properties/historic sites, and threatened and endangered species). In addition, districts should recognize that avoidance of environmental resources requiring special compliance procedures for impacts should be the preferred course of action. Avoidance of such resources will help to shorten project development time by avoiding the reporting and coordination necessary for compliance. The compilation of these inventories should be pursued only as necessary to provide high-quality information on the environmental impacts of the proposed action and to promote decision making. Discussion of the proposed project with resource agencies at a district coordination meeting may be helpful in determining the optimum level of effort for the inventorying activity.

The district should identify the full range of the environmental inventory by evaluating environmental data bases, discussing the project at a district coordination meeting, and submitting an environmental survey request and Special Waste Assessment Screen/Survey Request Form, as appropriate, to BDE. Resources involved may include:

- Section 4(f) and/or 6(f) properties;
- archaeological and historical properties;
- flood plains;
- sensitive noise receptors;
- prime farmland;
- wetlands:
- threatened or endangered species habitat, nature preserves, and natural areas;
- wild and scenic rivers and Class I streams;

- status of air quality attainment;
- water quality of streams and lakes;
- special waste;
- social/economic characteristics of the population;
- visual quality factors;
- well-head protection areas;
- groundwater recharge areas; and
- other biological resources (biodiversity, riparian habitat, etc.).

After the inventory has been prepared, the district should perform a preliminary evaluation of the magnitude and importance of the potential environmental impacts precipitated by the proposed action. This will assist in initiating the early coordination process (Activity 05) and establishing significance.

- 40 CFR 1500.1(b) Environmental Information for Decision-Making
- 23 CFR 771.111 Early Coordination and Public Involvement
- Paragraph II.C. of FHWA Technical Advisory T6640.8A Alternatives
- Chapter 27 Environmental Surveys
- 23 CFR 450.318 Major Investment Studies

Activity Title: Perform Environmental Survey

Activity No.: 04

Responsible Unit: BDE

Activity Description:

Based on the environmental survey request and Special Waste Assessment Screen/Survey Request Form, as appropriate, BDE will perform a record survey to access published information and determine the need for further investigation of the following:

- wetlands;
- archaeological and historical resources;
- Federal/State threatened or endangered species or their critical/essential habitat;
- well-head protection zones and regulated recharge areas;
- special waste sites; and
- Title VI or Environmental Justice concerns.

As determined necessary on the basis of the records survey or special waste assessment screening process, BDE will coordinate, as appropriate, with the responsible agencies and the district office for further field surveys. As indicated in the EA network, BDE will provide the environmental survey information to the district as it becomes available to assist in the progression of activities in the EA process.

Reference:

Chapter 27 Environmental Surveys

Activity Title: Initiate Early Coordination

Activity No.: 05

Responsible Unit: District Office/BDE

Activity Description:

Coordination with governmental agencies and the public, as appropriate, is one of the most important aspects of the EA process. This coordination should begin as early as practical in project planning.

The district and BDE will initiate early coordination with organizations and persons and appropriate local, State, and Federal agencies that have an interest in the project or have information or expertise concerning environmental issues the project may involve. The purpose of this coordination will be to assist in the identification of reasonable alternatives and in the gathering of information for evaluating the social, economic, and environmental impacts of the proposed project and possible impact mitigation measures. See Figure 24-2C for a sample letter.

The district office should begin developing the public involvement plan for the project at this stage (see Chapter 19).

- 40 CFR 1500.1(b) Environmental Information for Decision Making
- 40 CFR 1500.2(d) Public Involvement
- 40 CFR 1500.5(b) Interagency Cooperation
- 40 CFR 1501.1(b) Interagency Cooperation
- 40 CFR 1501.6 Cooperating Agencies
- 23 CFR 771.111 Early Coordination and Public Involvement
- 23 CFR 771.119(b) Early Coordination/Scoping
- Question 9. of CEQ Q&A Approvals from Other Agencies
- Section 22-5 Coordination
- Chapter 19 Public Involvement Guidelines

[Date]
[Address]
Dear Sir or Madam:

The Illinois Department of Transportation is initiating the information gathering phase of the Environmental Assessment (EA) for the proposed improvement of US Route 45 from Harrisburg to Eldorado. Because the project may affect your area of expertise, your facilities, or your activities or programs, we are seeking your comments on this project.

The study area for the project begins at a point west of Harrisburg along the new Illinois Route 13 and extends to the intersection of US Route 45 with Illinois Route 142 in Eldorado (see Figure 1). The estimated length of the project is 8.6 miles (13.8 km).

Existing US Route 45 is a north/south route that runs along the eastern edge of Harrisburg to Eldorado. The existing route includes two traffic lanes with aggregate-paved shoulders. Pavement width is generally 24 ft (7.2 m). Access is uncontrolled, contributing to high accident rates in areas of commercial development.

The proposed action is to reconstruct US Route 45 between Eldorado and Harrisburg from a point on new Illinois Route 13 west of Harrisburg to US Route 45. The project would be designed as a rural, four-lane expressway. The typical cross section for this facility type includes two roadways 24 ft (7.2 m) wide separated by a 50 ft (15 m) wide median. The project would be partially access-controlled. No direct commercial access would be allowed to the facility. The proposed project would be designated as Federal Aid Route 332.

Alternatives to be considered include a no-action alternative, reconstruction of the existing two-lane facility, and dualizing the existing facility (i.e., constructing a parallel roadway).

We look forward to your respon	nse to this request.	If you have a	any questions	regarding the
preparation of the EA or would I	ike to discuss the p	roject in more o	detail, please c	ontact (<i>name</i>)
at this office (phone:	, fax:).		
-				
Sincerely,				

[Name] District Engineer

292jhs

SAMPLE COORDINATION LETTER
Figure 24-2C

Activity Title: Identify/Notify Cooperating Agencies

Activity No.: 06

Responsible Unit: District Office/BDE/FHWA

Activity Description:

In Activity 05, the district will have made a preliminary identification of those agencies which may have an interest in the project. The following procedures shall be used for requesting involvement of cooperating agencies:

- The district office shall make a preliminary determination of whether there are, or may be, Federal, State, or local agencies having jurisdiction by law or having special expertise with respect to environmental issues that either must be or should be requested to be cooperating agencies. Any Federal agency having or expected to have permit approval or concurrence authority or commenting responsibility on a Federally funded/regulated action shall be requested to be a cooperating agency.
- 2. For those project situations where a need for contacting such agency or agencies is identified, this should be discussed with the FHWA Division Office and BDE representatives as soon as practical, preferably at one of the regular district coordination meetings (see Section 22-5). The minutes of the coordination meeting should document the discussion and include an indication of the agency or agencies that will be contacted.
- 3. After discussion among the district, FHWA, and BDE, FHWA will contact appropriate Federal agencies to request/invite them to be cooperating agencies. FHWA will provide the district and BDE copies of the requests and responses. For any State or local agency that the district, FHWA, and BDE determine should be requested to be a cooperating agency, the district shall contact the agency, in writing, to request/invite its participation as a cooperating agency. (Refer to Figure 24-2D for sample format). The district shall provide informational copies of requests and responses to BDE and FHWA.

- 40 CFR 1501.6 Role of Cooperating Agencies
- 40 CFR 1508.5 Definition of Cooperating Agency
- 23 CFR 771.109(c)(3) Local Public Agencies as Cooperating Agencies
- 23 CFR 771.111(d) Requesting Agencies to Become Cooperating Agencies
- 23 CFR 771.119(b) Early Coordination
- Section 22-5 Coordination
- Questions 14a., 14b., and 14c. of CEQ Q&A Roles of Lead and Cooperating Agencies, Resolution of Disputes
- BDE Information Memorandum 92-3 FHWA Guidance on Cooperating Agencies

[Agend	cy Address]		
Subject: [Project identification information: route, location/termini, counties, project number]			
Dear S	ir or Madam:		
Transp Route scoping certain permits	ederal Highway Administration in cooperation with the Illinois Department of cortation has initiated studies for an Environmental Assessment for [FAP/Illinois/U.S.] in County/ies, Illinois. Your agency was invited to attend a g meeting for the project on¹ Since the project [will almost ly require a Section 404 permit and because of your agency's legal jurisdiction over such g [may affect fish and wildlife habitat and because of your agency's special expertise], we questing your agency to be a cooperating agency.		
	linois/U.S.] Route is [describe project location and need, alternatives under eration, potential environmental impacts, etc.].		
or anal	gency's involvement should entail those areas under its jurisdiction and no direct writing lysis will be necessary for the preparation of the document. To maximize interagency ration, we will do the following:		
1.	invite you to Coordination Meetings;		
2.	consult with you on any relevant technical studies that will be required;		
3.	organize joint field reviews with you;		
4.	provide you with project information, including study results;		
5.	encourage your agency to use the aforementioned documents to express your views on subjects within your jurisdiction or expertise; and		
6.	include information in the project environmental documents that cooperating agencies may need to discharge National Environmental Policy Act (NEPA) responsibilities and any other requirements regarding jurisdictional approvals, permits, licenses, or clearances.		

FORMAT EXAMPLE (Cooperating Agency Request Letter)
Figure 24-2D

¹ Include this sentence as applicable and appropriate.

² If the agency has not already received a copy of FHWA's guidance on cooperating agencies, a copy should be enclosed.

You have the right to expect that the EA will enable you to discharge your jurisdictional responsibilities. Likewise, you have the obligation to tell us if, at any point in the process, your needs are not being met. We expect that at the end of the process, the EA will satisfy NEPA requirements including those related to project alternatives, environmental consequences, and mitigation. Further, we intend to utilize the EA and our subsequent decision statement as our decision-making documents and as the basis for the permit application.³

on this pro	orward to your response to this request and your involvement as a cooperating agency bject. If you have any questions or would like to discuss in more detail the project or cies' respective roles and responsibilities during the preparation of the EA, please
Very truly	yours,
Name of I	DOT District Engineer
	ireau of Design and Environment IWA Division Office

³ Delete this paragraph in requests to agencies having special expertise.

FORMAT EXAMPLE (Cooperating Agency Request Letter)

Figure 24-2D (Continued)

Activity Title: Conduct Project Scoping Process

Activity No.: 07

Responsible Unit: District Office/BDE/FHWA

Activity Description:

Scoping is an early and open process for determining the scope of issues to be addressed in the EA and for identifying potential significant issues related to the proposed action. Scoping is intended to focus the study effort on issues that are significant and avoid the collection of needless detailed information on insignificant issues.

For an EA, a scoping process may or may not be necessary. This depends, in part, on the number and magnitude of issues potentially involved and the probability that the proposed action may involve a significant issue. Part 1501.7 of the *CEQ Regulations* discusses scoping. The following information is also relevant:

- 1. <u>Meeting</u> A formal scoping meeting may or may not be necessary. See Section 22-5. The district may accomplish scoping during other formal/informal meetings and field reviews or through written or verbal communication.
- <u>Limits</u> The limits of scoping should be determined through agreement among IDOT, FHWA, and any cooperating and/or other agencies having special expertise or jurisdiction by law on the issue. If an agreement cannot be reached, the lead agency is responsible for making the final scoping determination.
- 3. <u>Comprehensiveness</u> The objective of scoping is to identify early in project development all environmental issues which may surface so that, as practical, NEPA can serve as a "one-stop" process. This includes, for example, issues which typically must be addressed later in project development (e.g., Section 404 permit, Section 10 permit).
- 4. <u>Schedule</u> The district must communicate the tentative planning and decision-making schedule so the timing of the environmental analyses can be arranged to meet the project schedule.
- 5. <u>Documentation</u>. The district must fully document all scoping actions.

If cooperating agencies are involved, the district should ask during the scoping process if the agency wishes to review the preliminary EA before the official EA is made available for review.

- 40 CFR 1501.7 Scoping
- 23 CFR 771.119(b) Early Coordination
- "Background" Section of FHWA Technical Advisory T6640.8A
- Question 13. of CEQ Q&A Scoping and EA's
- Section 22-5 Coordination
- BLE Information Memorandum 9-81 CEQ Scoping Guidance

Activity Title: Determine Reasonable Alternatives

Activity No.: 08

Responsible Unit: District Office/BDE/FHWA

Activity Description:

The determination of the reasonable alternatives for in-depth evaluation is an evolutionary process, which may be summarized as follows:

- identify preliminary alternatives (Activity 03);
- perform a rough evaluation of the potential impacts of these preliminary alternatives on the inventory of the affected environment (Activity 03) to identify, for example, "fatal" flaws;
- incorporate input from agencies and/or the public (Activities 05 and 07) in the decision-making process;
- identify a range of all reasonable alternatives; and
- based on an appropriate level of re-evaluation and additional coordination, identify those selected reasonable alternatives which are worthy of in-depth evaluation considering:
 - + the need to identify potential avoidance and minimization alternatives for Section 4(f), flood plains, wetlands, etc.:
 - + that the cost of the environmental studies for each alternative should be commensurate with its probability of implementation;
 - that, collectively, the selected alternatives should cover the full spectrum of alternatives;
 and
 - + that, collectively, the selected alternatives should gain public acceptance that no reasonable alternative has been omitted.

Typically, this process will yield two or three reasonable alternatives for in-depth evaluation. This includes the no-action alternative, which must be among the alternatives for in-depth study.

- 40 CFR 1502.14 Alternatives Including the Proposed Action
- 23 CFR 771.111(f) Logical Termini, Independent Utility, Effect on Other Projects
- Questions 1., 2., and 3. of CEQ Q&A Identification and Evaluation of Alternatives
- Paragraph II.C. of FHWA Technical Advisory T6640.8A Alternatives
- Section 22-3.09 Selection of Preferred Alternative
- Section 22-4 Concurrent NEPA/404 Processes
- Section 22-6.04 Logical Termini

Activity Title: Evaluate Reasonable Alternatives In-Depth

Activity No.: 09

Responsible Unit: District Office/BDE/FHWA

Activity Description:

For each selected reasonable alternative, the district must identify and evaluate in detail those environmental impacts which will likely be precipitated by the construction and operation of the proposed action. The district may also need to address impacts associated with the total highway section. For example, completing a gap in a highway may substantially increase traffic volumes, change traffic patterns, or improve access to an area, creating a need to evaluate impacts related to the entire highway section.

The district in cooperation with BDE will initiate those studies necessary to determine the environmental impact of the proposed project alternatives. The nature of the studies will include:

- coordination with affected local, State, and Federal agencies and the public; and
- an evaluation of the potential environmental impacts including:

- social/economic, + flood plains,

+ agricultural. + wetlands.

historical/archaeological, + threatened and endangered species,

+ air quality, + natural resources, + noise, + special waste sites,

+ energy, + Section 4(f)/6(f), and
+ water quality/resources + other issues as applicable

water quality/resources, + other issues as applicable (e.g., Wild and Scenic Rivers, Well-head Protection Zones, regulated ground-water recharge areas).

- 40 CFR 1502.14 Alternatives Including the Proposed Action
- 40 CFR 1502.16 Environmental Consequences
- 23 CFR 771.111(e) Coordination with Affected States and Federal Land Management Entities
- 23 CFR 771.111(f) Logical Termini, Independent Utility, Effect on Other Projects
- 23 CFR 771.111(h) Public Involvement
- Questions 1., 2., and 3. of CEQ Q&A Identification and Evaluation of Alternatives
- Paragraph II.C. of FHWA Technical Advisory T6640.8A Alternatives
- Section 22-3.09 Selection of Preferred Alternative
- Section 22-6.04 Logical Termini

Activity Title: Prepare/Distribute Special Technical Reports

Activity No.: 10

Responsible Unit: District Office/BDE

Activity Description:

For environmental concerns requiring in-depth analyses (e.g., wetlands, noise), it may be appropriate to prepare "technical reports" discussing the analyses and findings for the issues involved. BDE will determine "technical report" requirements. The key conclusions from these reports will be summarized in the EA. As appropriate to respond to requests identified during early coordination or scoping, these "technical reports" shall be coordinated with agencies and other interested entities prior to making the EA available for review. Technical reports should be reviewed by BDE and FHWA prior to making them available to other parties.

Reference:

Chapter 26 Special Environmental Analyses

Activity Title: Prepare/Review Preliminary EA

Activity No.: 11

Responsible Unit: District Office/BDE/Office of Chief Council/FHWA

Activity Description:

At this stage of project development, the district will have received input from the appropriate agencies and the public (Activities 05 and 07), will have evaluated in-depth the selected reasonable alternatives (Activity 09), and will have received input on any special technical reports (Activity 10). Before the EA is made available for review (Activity 12), the district will prepare a preliminary version of the EA. The following process will apply to the review of the preliminary EA:

- The district office will submit the preliminary EA to BDE.
- BDE will review and evaluate the preliminary EA and will notify the district office of any required revisions, if necessary, before proceeding with further reviews.
- The Office of IDOT Chief Counsel will be afforded a three-week period for providing comment. If the Office of IDOT Chief Counsel provides comments, BDE will advise the district office, if necessary, so the EA can be revised before proceeding with further reviews.
- After the EA has been revised to respond to comments from the Office of IDOT Chief Counsel or
 after expiration of the period for receipt of such comments, the preliminary EA will be submitted to
 the FHWA Illinois Division Office through BDE for review and evaluation. Concurrently, the district
 should provide the preliminary EA to any cooperating agencies which requested a copy during the
 scoping process (Activity 07).
- The comments of the FHWA on the preliminary EA and/or Section 4(f) Evaluation will be transmitted to the district office through BDE.

- 23 CFR 771.119(a) Preparation of EA
- Section II of FHWA Technical Advisory T6640.8A Preparation of EA
- Section 24-3 Format and Content of EA
- Chapter 26 Special Environmental Analyses

Illinois

EA Process

Activity Title: Revise EA and Make Available for Review

Activity No.: 12

Responsible Unit: District Office/BDE

Activity Description:

At this stage of project development, the district will have received input from BDE, the Office of Chief Counsel, FHWA, and any cooperating agencies on the preliminary EA (Activity 11). The following process will apply to the preparation and processing of the EA for approval to make available for review:

- The district office will revise the preliminary EA (Activity 11) in response to comments from BDE, the Office of Chief Counsel, etc. The district will submit the appropriate number of copies of the EA and Cover Sheet to BDE. See Figure 24-2E. The Engineer of Design and Environment will sign the cover sheet for IDOT.
- BDE will submit the EA to the FHWA Division Office.
- If in agreement with its scope and content, the FHWA Division Office will affix its official signature to the Cover Sheet of the EA.
- BDE will then return a signed cover sheet to the district office.

23 CFR 771.119(d), (e), and (f) discuss the availability for review of the EA. The EA will be made available for public inspection at the applicable district office and the FHWA Division Office.

The FHWA Environmental Regulations 23 CFR 771 do not require general circulation of an EA for comment. However, when the EA includes an individual Section 4(f) Evaluation, it must be provided to appropriate entities pursuant to Section 4(f) requirements. In addition, when an EA is prepared for NEPA compliance on a project subject to the agreement on Concurrent NEPA/404 Processes, the document must be provided to the appropriate agencies involved in reviews for the concurrent processes. Figure 24-2F presents the entities and the number of copies to be provided for review for each of these requirements. The district office will send the copies directly to the appropriate entities after the document is approved by FHWA for public availability.

- 23 CFR 771.119(c) FHWA Approval
- 23 CFR 771.119(d) Public Availability
- 23 CFR 771.119(e) EA Availability for Public Hearing
- 23 CFR 771.119(f) Availability Notice When Public Hearing Not Held
- 23 CFR 771.119(h) Public Availability with Respect to FONSI for Class I Action
- Question 38. of CEQ Q&A Public Availability of EA
- Section 22-4 Concurrent NEPA/404 Processes
- Section 24-3 Format and Content of EA
- Section 26-2 Section 4(f) Evaluations

Document	Entity	No. of Copies
Preliminary EA	District to BDE	Contact BDE
	BDE to FHWA	2
Original Signature Pages	District to BDE	2
EA with no Section 4(f) or with Programmatic Section	District to BDE	3
4(f)	BDE to FHWA Division Office	1
EA with Individual Section 4(f) Evaluation	District to BDE	5
Evaluation	BDE to FHWA Division Office	2

COPIES FOR BDE/FHWA PROCESSING Figure 24-2E

EA with Individual Section 4(f) Evaluation:		
US Department of the Interior	7 copies	
Officials having jurisdiction over Section 4(f) resource(s)	1 each	
US Department of Agriculture (if required)	2 copies	
US Department of Housing and Urban Development (if required)	2 copies	
EA with Individual Section 404 Permit (Subject to Concurrent NEPA/404 Processes):		
US Army Corps of Engineers	1 copy	
US Environmental Protection Agency	1 copy	
US Fish and Wildlife Service (division office)	1 copy	
US Coast Guard	1 copy	
Illinois Department of Natural Resources	1 copy	
Illinois Environmental Protection Agency	1 copy	

Note: BDE may be contacted to verify the number of copies necessary for processing to FHWA or to outside agencies pursuant to Section 4(f) requirements or the Concurrent NEPA/404 Processes.

COPIES FOR OUTSIDE AGENCIES FOR SECTION 4(F) OR CONCURRENT NEPA/404 REVIEW

Figure 24-2F

Activity Title: Review by Interested Agencies/Public Entities

Activity No.: 13

Responsible Unit: Various

Activity Description:

40 CFR 1503 discusses commenting relative to environmental documents.

23 CFR 771.119(e) and (f) establish minimum time frames for inviting comments on the proposed action after publication of the Notice of Availability for the EA.

- 40 CFR 1503 Commenting
- 23 CFR 771.119(e) Submission of Comments with Public Hearing
- 23 CFR 771.119(f) Submission of Comments without Public Hearing
- Question 14c. of CEQ Q&A Commenting Responsibility of Cooperating Agencies

Activity Title: Implement Public Involvement Process

Activity No.: 14

Responsible Unit: District Office

Activity Description:

Public involvement is a critical element of the EA process. Chapter 19 and the cited references discuss the requirements for public hearings, public information meetings, and input.

- 40 CFR 1500.2(d) Policy Encouraging Public Involvement
- 40 CFR 1506.6 Public Involvement Requirements
- 23 CFR 771.111(h) Public Involvement Requirements
- 23 CFR 771.119(e) Public Hearing Held
- 23 CFR 771.119(f) Public Hearing Not Held
- Question 38. of CEQ Q&A Public Availability of EA
- Chapter 19 Public Involvement Guidelines

Activity Title: Evaluate and Respond to Substantive Comments

Activity No.: 15

Responsible Unit: District Office

Activity Description:

The district will evaluate all comments on the EA and/or Section 4(f) Evaluation, where applicable, and will prepare responses to these comments as appropriate. Possible responses include:

- modifying alternatives including the proposed action;
- developing and evaluating alternatives not previously given serious consideration;
- supplementing, improving, or modifying analyses;
- making factual corrections; or
- explaining why the comments do not warrant further agency response, citing the sources, authorities, or reasons which support that position and, if possible, indicating those circumstances which would trigger reappraisal or further response.

It is not necessary nor appropriate to respond to all comments by letter.

- 40 CFR 1503.4 Response to Comments
- 23 CFR 771.119(g) Documentation of Comments and Responses
- Question 14d. of CEQ Q&A Lead Agency Response to Cooperating Agency's Comments
- Question 29 of CEQ Q&A Responses to Comments
- Section 19-6.04 Responses to Comments

Activity Title: Prepare EA Errata and Draft FONSI

Activity No.: 16

Responsible Unit: District Office

Activity Description:

The district office will prepare Errata to the EA to address, as appropriate, any issues raised during the review of the EA. In addition, the district will prepare a draft FONSI for review by BDE and FHWA prior to preparation of the final FONSI. The following process will apply to the preparation of EA Errata and draft FONSI:

- The district office will submit the EA Errata and draft FONSI to BDE.
- BDE will review and evaluate the two documents and will notify the district office of any required revisions, if necessary, before forwarding the items to FHWA.
- After the district office has incorporated any necessary changes, the EA Errata and draft FONSI will be submitted to the FHWA Illinois Division Office through BDE.
- The FHWA comments on the EA Errata will be transmitted to the district office through BDE.

- 23 CFR 771.119(g) Basis for FONSI
- Paragraph II.H. of FHWA Technical Advisory T6640.8A EA Errata
- Section III of FHWA Technical Advisory T6640.8A Sample FONSI
- Question 37a. of CEQ Q&A Level of Detail in FONSI
- Section 22-4 Concurrent NEPA/404 Processes

Activity Title: Forward EA Errata and Recommend FONSI

Activity No.: 17

Responsible Unit: District Office/BDE

Activity Description:

The district will incorporate changes in the EA Errata as necessary to respond to comments.

If the project does not involve use of a Section 4(f) property, or if the Section 4(f) involvement is covered by a programmatic Section 4(f) Evaluation, the district will submit three copies of the EA Errata and the recommended FONSI to BDE. BDE will submit one copy of the EA Errata and the recommended FONSI to the FHWA Division Office.

If the EA involves an individual Section 4(f) Evaluation, the district will submit seven copies of the EA Errata and final Section 4(f) Evaluation and the recommended FONSI to BDE. BDE will forward four copies to the FHWA Division Office. The district also must send seven copies of the EA Errata and final Section 4(f) Evaluation to the US Department of the Interior at the same time they are submitted to BDE.

The FONSI is an internal document and should not be made available to the public until FHWA has adopted the FONSI or prepared its own.

- Section III of FHWA Technical Advisory T6640.8A Procedures for EA Errata and FONSI
- Chapter 26 Special Environmental Analyses

Activity Title: Prepare and Issue FONSI

Activity No.: 18

Responsible Unit: FHWA

Activity Description:

FHWA will either adopt the recommended FONSI (Activity 17) or prepare a separate FONSI for the proposed action. The cited references provide specific information on the FONSI.

- 23 CFR 771.121(a) FHWA Review and Issuance of FONSI
- 23 CFR 771.121(c) FONSI's of Other Agencies
- Section III of FHWA Technical Advisory T6640.8A Procedures for EA Errata and FONSI

Activity Title: Make FONSI Available for Review

Activity No.: 19

Responsible Unit: District Office

Activity Description:

The district office has the primary responsibility for distributing the Notice of Availability for the FONSI and making the FONSI available for public review. The FONSI will be available at the district office and the FHWA Division Office.

- 23 CFR 771.113(a) Timing of Administration Activities for FONSI
- 23 CFR 771.121(b) Notice of Availability
- Paragraph IV.B. of FHWA Technical Advisory T6640.8A Distribution of FONSI
- Questions 37b. and 38. of CEQ Q&A Public Availability of FONSI

EA Process

Activity Title: Implement Mitigation Measures

Activity No.: 20

Responsible Unit: District Office/BDE/FHWA

Activity Description:

Those involved in preparing and processing the EA should assist those involved in subsequent aspects of project development and implementation in facilitating the fulfillment of commitments made as a part of the NEPA process. Each district must ensure that its procedures for follow-through on commitments provide for including information on mitigation measures and other commitments (e.g., Wetlands Compensation Plan, Erosion Control Plan, Special Provisions for management and monitoring of special wastes) in the project plans, as necessary, and for implementing and monitoring the measures during construction and maintenance, as appropriate.

References:

- 40 CFR 1505.3 Implementing Mitigation
- 23 CFR 771.109 (b) Responsibility for Implementing Mitigation
- Question 39. of CEQ Q&A Enforceability of Mitigation Measures in EA and FONSI

24-3 FORMAT AND CONTENT OF EA

24-3.01 **General**

24-3.01(a) Objectives

References: 40 CFR 1502.1 Purpose of Environmental Document

40 CFR 1502.8 Clarity of Writing

Question 36a. of the CEQ Q&A Purpose of EA, Length, and Level of Detail

Section 22-2 Environmental Documentation

24-3.01(b) Scope

References: 40 CFR 1500.4 Reducing Paperwork

Section II of FHWA Technical Advisory T6640.8A Format and Content of EA

Question 36 of the CEQ Q&A Level of Detail in EA

The following will apply to the scope of an EA:

- 1. <u>Emphasis</u>. Every effort must be made to present the required information as concisely and clearly as possible. Tables and exhibits should be used, where practical, to present and compare information. Exhibits should be of good quality, and each should be reviewed to ensure that its message is clear and that it is needed to properly evaluate an issue or project impact.
- 2. Scope. The EA should summarize background data, analyses, and conclusions. Lengthy descriptions and detailed background information should not be included. Such information should be incorporated by reference. Worksheets prepared during the analyses should not be included in the EA. For environmental concerns requiring in-depth analyses (e.g., wetlands, noise), "technical reports" discussing the analyses and findings for the issues involved should be prepared. See Activity 10 in Figure 24-2A and Chapter 26. A summary of the key conclusions from these reports should be included in the "Environmental Consequences" Section of the EA. The applicable technical report should be incorporated by reference.

40 CFR 1502.8 Clarity of Writing

Question 36a. of the CEQ Q&A Purpose of EA, Length, and Level of Detail

Section 22-2 Environmental Documentation

The format and content of an Environmental Assessment are intended to ensure that the document will provide sufficient evidence and analysis to determine whether to prepare an EIS or FONSI.

24-3.01(c) Statements on Impacts

Discussions in the EA should not contain statements that there are "no significant impacts"; they should address the limits of (or absence of) impacts. Statements that there are no significant impacts should be reserved for the FONSI.

24-3.01(d) Paper Size

EA's will be printed on paper approximately 8 $\frac{1}{2}$ inches x 11 inches (216 mm x 279 mm), and the maps, drawings, illustrations, etc., should be folded to the same size. Sheets wider than 8 $\frac{1}{2}$ inches (216 mm) should be folded to open to the right with sheet identification placed at the right edge.

24-3.01(e) Type Size/Font

The texts of EA's should be prepared using an 11-point or 12-point type size in a serif font such as Times New Roman.

24-3.02 Table of Contents

Reference: Section II of FHWA Technical Advisory T6640.8A Format and Content of EA

The Table of Contents for an EA will typically include:

- Cover Sheet,
- Purpose of and Need for Action,
- Affected Environment,
- Alternatives,
- Environmental Consequences,
- Comments and Coordination,
- Appendices (if any), and
- Section 4(f) Evaluation (if any).

The sections entitled "List of Preparers," "List of Agencies, Organizations, and Persons to Whom Copies of the Statement Were Sent," and "Index," which are included in an EIS, are not required for an EA. In some cases (e.g., where an action is complex), a "Summary" may be useful. If included, it should address the items indicated in 40 CFR 1502.12 and Paragraph V.B. of FHWA Technical Advisory T6640.8A, as appropriate; however, for an EA-type project, the impacts will not be major.

A "Table of Contents" generally is not necessary. If included, the Table of Contents should provide the page numbers for each section. Maps, charts, tables, each appendix, etc., should have a separate listing.

24-3.03 Cover Sheet

Reference: Paragraph II.A. of FHWA Technical Advisory T6640.8A Cover Sheet Format

Figure 24-3A presents the Cover Sheet for an EA. Note that inclusion of a statement indicating the date by which comments must be received is required when the EA will be formally circulated; it is optional in other cases. The Engineer of Design and Environment will sign the Cover Sheet for IDOT (See Section 24-2, Activity 12).

24-3.04 Purpose of and Need for Action

References: Paragraph II.B. of FHWA Technical Advisory T6640.8A Purpose of and Need for

Action

Section 22-6.01 Purpose and Need (FHWA Guidance)

This Section should concisely and completely explain the problem(s) the proposed action is intended to address. This Section of the EA should clearly establish that the proposed action is necessary. Data/ information should be included in summary form to support this discussion.

24-3.05 Affected Environment

References: 40 CFR 1502.15 Objectives of Affected Environmental Discussion

Paragraph V.F. of FHWA Technical Advisory T6640.8A Affected Environment

Section 22-6.03 CERCLIS

Chapter 27 Environmental Surveys

Note that the first two of the cited references apply to an EIS; the guidance should be placed within the context of an EA. The discussion on the affected environment should provide information regarding each of the issue areas listed below, as appropriate. These correspond to issue areas discussed in the format guidance for the "Environmental Consequences" Section of the EA (Section 24-3.07). As practical, the order in which the areas are discussed in the "Affected Environment" Section of the EA should be the same as that in which they are discussed in the "Environmental Consequences" Section. (For some issues [e.g., noise, water quality], it may be appropriate to present existing conditions as part of the "Environmental Consequences" discussion.) The description of Natural Resources should include geology and soils to the extent that they affect the consideration of project alternatives or the nature of the project's impacts on groundwater resources and ecosystems in the project area.

FHWA-IL-EA-#-YR

(Route, Termini, City or County, and State)

ENVIRONMENTAL ASSESSMENT

Submitted Pursuant to 42 USC 4332 (2)(c) by the

U. S. Department of Transportation Federal Highway Administration

and

Illinois Department of Transportation

<u>Cooperating Agencies</u> (Include List Here, as applicable)

Date of Approval	For IDOT
Date of Approval	For FHWA

The following persons may be contacted for additional information concerning this document:

(Name)
Division Administrator
Federal Highway Administration
3250 Executive Park Drive
Springfield, Illinois 62703
Telephone: 217-492-4640

(Name, office address, and phone number of IDOT District Engineer)

A one-paragraph abstract of the EA indicating project type, length, etc.

Comments on this EA are due by (<u>date</u>) and should be sent to (<u>name and office address of IDOT</u> <u>District Engineer</u>).*

*Required when the EA will be formally circulated for comment. Optional in other cases.

EA COVER SHEET Figure 24-3A

- Social/Economic,
- Agricultural,
- Cultural,
- Air Quality,
- Noise.
- Natural Resources,
- Water Quality/Resources,
- Flood Plains,
- Wetlands.
- Special Waste,
- Special Lands, and
- Other Issues.

The following paragraph should be included in the Affected Environment Section:

The project area was inventoried for environmental resources. Those cultural, natural, physical, and socio-economic resources, and special waste sites found to be present in the study area are identified in this section and on the environmental inventory map (Exhibit _____).

In addition to the information discussed in the cited references, the following guidance applies to the "Affected Environment" Section of the EA:

- 1. <u>Area.</u> Only the area that is likely to experience <u>change</u> as a result of the proposed undertaking should be described (e.g., predominant land uses).
- 2. <u>Sensitive Resources</u>. Sensitive resources (e.g., historic sites, Section 4(f) lands, wetlands) in the project area should be inventoried. See Chapter 27. An "environmental inventory map" should be used in conjunction with the general description of the area to identify these sensitive resources. Numbered symbols for each sensitive resource, keyed to an explanatory table, should be used to denote the location of the resources relative to the alternatives. A clear photograph(s) should be provided for very sensitive resources (e.g., historic structures, wetlands).
- 3. <u>Air Quality</u>. Include wording similar to the following to address Air Quality aspects of the affected environment for the proposed project:

The National Ambient Air Quality Standards (NAAQS), established by the U.S. Environmental Protection Agency, set maximum allowable concentration limits for six criteria air pollutants. Areas in which air pollution levels persistently exceed the NAAQS may be designated as "non-attainment." States in which a non-attainment area is located must develop and implement a State Implementation Plan (SIP) containing policies and regulations that will bring about attainment of the NAAQS.

All areas of Illinois currently are in attainment of the standards for four of the six criteria pollutants: carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. Chicago and Metro-East St. Louis are classified as non-attainment for the 1-hour ozone standard. In addition, Cook, DuPage, Kane, Lake, McHenry, and Will Counties and Aux Sable and Goose Lake Townships in Grundy County and Oswego Township in Kendall County have been classified as a severe ozone non-attainment area. Lake Calumet and McCook in Cook County have been designated as non-attainment for the particulate matter (PM_{10}) standard. The sources of particulate matter that prompted the non-attainment classification are unrelated to transportation. All other areas of Illinois currently are in attainment for the ozone and PM_{10} standards.

[Use the appropriate statement from the following:]

No portion of this project is located within a designated non-attainment area.

or

This project is [totally/partially] located within an area designated as non-attainment for the [indicate criteria pollutant standard(s) involved] standard(s) of the NAAQS.

If a proposed project is located within a designated non-attainment area, include information to describe the numerical standard for the criteria pollutant(s) for which the area is in non-attainment. Also include summary information on the results of recent air quality monitoring in the project vicinity for the criteria pollutant(s) involved in the non-attainment classification. Air quality monitoring information can be obtained from the most recent "Illinois Annual Air Quality Report" issued by the Illinois EPA. Also include the appropriate paragraph from the following concerning the Pollutant Standards Index/Air Quality Index:

[For monitoring information obtained from the annual air quality report for 1999:]

The Pollutant Standard Index (PSI) is the national standard method for reporting air pollution levels to the general public. The PSI is based on the short-term Federal National Ambient Air Quality Standards (NAAQS), the Federal episode criteria, and the Federal Significant Harm levels for five of the "criteria pollutants," namely, ground-level Ozone (O₃), Sulfur Dioxide (SO₂), Carbon Monoxide (CO), Particulate Matter (PM), and Nitrogen Dioxide (NO₂). The PSI levels have been divided into five categories: "Good" (0-50), "Moderate" (51-100), "Unhealthful" (101-199), "Very Unhealthful" (200-299), and "Hazardous" (300 and above).

PSI classifications of "Unhealthful" are uncommon in Illinois and classifications of "Very Unhealthful" are rare. To date, no classifications of "Hazardous" have occurred in Illinois.

[For monitoring information obtained from the annual air quality report for 2000 or a subsequent year:]

The Air Quality Index (AQI), is the current national standard method for reporting air pollution levels to the general public. The AQI is based on the short-term Federal National Ambient Air Quality Standards (NAAQS), the Federal episode criteria, and the Federal Significant Harm levels for five of the "criteria pollutants," namely, ground-level Ozone (O₃), Sulfur Dioxide (SO₂), Carbon Monoxide (CO), Particulate Matter (PM), and Nitrogen Dioxide (NO₂). The AQI levels have been divided into six categories: "Good" (0-50), "Moderate" (51-100), "Unhealthy for Sensitive Groups" (101-150), "Unhealthy" (151-200), "Very Unhealthy" (201-300), and "Hazardous" (301-500).

AQI classifications of "Unhealthy for Sensitive Groups" and "Unhealthy" are uncommon in Illinois. Classifications of "Very Unhealthy" are rare. To date, no classifications of "Hazardous" have occurred in Illinois.

- 4. <u>Documentation for Special Waste</u>. This section should be titled "Special Waste" and must appropriately document the results of the Special Waste Assessment (SWA) screening/survey process. It should address both hazardous and non-hazardous wastes, as applicable. If both types of wastes are involved, they should be addressed in separate paragraphs. The following subsections provide suggested statements for documenting the various outcomes of the procedures:
 - a. If application of the SWA screening criteria resulted in a finding that the project has no potential for involving sites potentially impacted with regulated substances, include a copy of the SWA screen/survey request form, signed and dated by the individual at the district who completed the form, in the coordination exhibits and use the following statements in the Affected Environment section:

The USEPA listing of potential, suspected, and known hazardous waste or hazardous substance sites in Illinois (i.e., the Comprehensive Environmental Response Compensation and Liability Information System [CERCLIS] list) has been reviewed to ascertain whether the proposed project will involve any listed site(s). As a result of this review, it has been determined that the proposed undertaking will not require any right-of-way or any easement from a site included in the CERCLIS listing as of [date of most recent CERCLIS listing provided to district office].

Application of the Special Waste Assessment screening criteria resulted in a finding that the project has no potential for involving sites potentially impacted with regulated substances. The most recent screening of the project area was completed in [month, year].

b. If the Preliminary Environmental Site Assessment (PESA) resulted in a finding that the project is "no risk" or "low risk" for involvement with sites potentially impacted with regulated substances, include a copy of the memorandum from BDE documenting the "no risk" or "low risk" determination in the coordination exhibits and use the following statements in the Affected Environment section:

The USEPA listing of potential, suspected, and known hazardous waste or hazardous substance sites in Illinois (i.e., the Comprehensive Environmental Response Compensation and Liability Information System [CERCLIS] list) has been reviewed to ascertain whether the proposed project will involve any listed site(s). As a result of this review, it has been determined that the proposed undertaking will not require any right-of-way or any easement from a site included in the CERCLIS listing as of [date of most recent CERCLIS listing provided to district office].

A Preliminary Environmental Site Assessment for sites potentially impacted with regulated substances was completed by the [Illinois State Geological Survey/district, as appropriate] in [month, year]. In addition to confirming that the project will not involve any CERCLIS site, the assessment concluded that the project will not involve other sites potentially impacted with regulated substances or that the involvement will be at an acceptable risk level (see the "Environmental Consequences" section).

c. If the PESA resulted in a finding that the project is "moderate risk" or "high risk" for involvement with sites potentially impacted with regulated substances and the district has determined it can avoid the site(s), include in the coordination exhibits a copy of the memorandum from BDE transmitting the PESA report and a copy of the PESA Response Form documenting the district's avoidance determination. Also include the following statements in the Affected Environment section:

The USEPA listing of potential, suspected, and known hazardous waste or hazardous substance sites in Illinois (i.e., the Comprehensive Environmental Response Compensation and Liability Information System [CERCLIS] list) has been reviewed to ascertain whether the proposed project will involve any listed site(s). As a result of this review, it has been determined that the proposed undertaking will not require any right-of-way or any

easement from a site included in the CERCLIS listing as of [date of most recent CERCLIS listing provided to district office].

A Preliminary Environmental Site Assessment for sites potentially impacted with regulated substances was completed by the [Illinois State Geological Survey/district, as appropriate] in [month, year]. In addition to confirming that the project will not involve any CERCLIS sites, the assessment concluded that other sites potentially impacted with regulated substances are located in the project area. However, the project build alternative will avoid all areas of known or potential contamination.

d. If the PESA resulted in a finding that the project is "moderate risk" or "high risk" for involvement with sites potentially impacted with regulated substances and the district cannot avoid the site(s), include the following statements, as appropriate, in the Affected Environment section:

> The USEPA listing of potential, suspected, and known hazardous waste or hazardous substance sites in Illinois (i.e., the Comprehensive Environmental Response Compensation and Liability Information System [CERCLIS] list) has been reviewed to ascertain whether the proposed project will involve any listed site(s). As a result of this review, it has been determined that the proposed undertaking [will/will not] require right-of-way from a site included in the CERCLIS listing as of [date of most recent CERCLIS listing provided to district office].

> A Preliminary Environmental Site Assessment for sites potentially impacted with regulated substances was completed by the [Illinois State Geological Survey/district, as appropriate] in [month, year]. The assessment concluded that the build alternative will involve special waste sites [in addition to the involvement with CERCLIS sites indicated above]. Sites contaminated with hazardous wastes [are/are not] involved. Further investigations have been conducted to determine the risks and liabilities of the involvement.

24-3.06 Alternatives

References: 40 CFR 1502.14 Objectives of Alternatives Discussion

Paragraph II.C. of FHWA Technical Advisory T6640.8A Alternatives

Questions 1, 3, 4, and 5 of CEQ Q&A Identification and Evaluation of Alternatives Question 7. of CEQ Q&A Relationship Between Alternatives and Environmental

Consequences Sections

A brief description should be provided for each reasonable alternative under consideration including the "no-action" alternative. Each alternative should be presented at a comparable level of detail and referenced to an exhibit. The principal features of each alternative (e.g., major design aspects such as access control, pavement/shoulder width, and interchanges) should be identified. The discussion should provide only the level of detail necessary for understanding the relationship between the "Purpose and Need" for the project and the proposed alternatives.

Any alternative which was studied and eliminated from further consideration should be described in a brief paragraph, including the reason(s) it is no longer being considered. Supporting information should be quantified as practical so that reviewers can understand the basis for its elimination.

For projects that would significantly increase capacity for single-occupancy vehicles (i.e, by adding lanes to an existing highway or constructing a new highway) in areas designated as non-attainment for carbon monoxide or ozone (e.g., the Chicago Metro area or the St. Louis Metro East area), the alternatives section must include information on Congestion Management System alternatives. (Lane additions for safety improvements or for elimination of bottlenecks are not considered to be projects that significantly increase capacity for single-occupancy vehicles.) The following paragraphs provide recommended wording for use in addressing this requirement.

Congestion Management System Alternatives

The provisions of 23 CFR 450.320 and 23 CFR 500.105 (a) place restrictions on the use of Federal funds for projects in Transportation Management Areas (TMAs) designated as non-attainment for carbon monoxide and/or ozone. In these areas, Federal funds may not be programmed for any project that will significantly increase capacity for single-occupancy vehicles (SOVs) unless the project is a component of a Congestion Management System (CMS). The CMS is required to provide an appropriate analysis of alternatives to the proposal for adding SOV capacity, including all reasonable congestion management strategies. If the analysis demonstrates that other alternatives and/or congestion management strategies cannot fully satisfy the need for additional capacity and that, therefore, the additional SOV capacity is warranted, the CMS must identify all reasonable strategies that will maintain the functional integrity of the additional lanes. All identified reasonable strategies must be incorporated into the project.

[For projects in the Chicago metro area]

Individual projects involving addition of SOV capacity were evaluated, selected, and prioritized in the course of developing the Fiscal Year [insert appropriate years] Transportation Improvement Program (TIP) and the long-range [insert appropriate year] Regional Transportation Plan (RTP) for Northeastern Illinois. The Northeastern Illinois CMS is documented via the following materials which are available through the Chicago Area Transportation Study (CATS):

- Congestion Management System for Northeastern Illinois, Technical Supplement, [month, year].
- Congestion Management Handbook, [month, year].
- Congestion Management System for Northeastern Illinois, [insert appropriate year] Annual Status Report.

[For projects in the St. Louis Metro East area]

Individual projects involving addition of SOV capacity were evaluated, selected, and prioritized in the course of developing the Fiscal Year [insert appropriate years] Transportation Improvement Program (TIP) and the long-range [insert appropriate year] Regional Transportation Plan (Transportation Redefined II). The St. Louis Metro East Area CMS is documented via the following materials which are available through the East-West Gateway Coordinating Council:

- Congestion Management System for the St. Louis Region.
- Congestion Management Handbook, [month, year].
- Congestion Management System for the St. Louis Region, Technical Supplement, [month, year].

As indicated in the documents listed above, the development process for the TIP and Regional Transportation Plan constitutes the CMS for [Northeastern Illinois or the Metro East Area]. This process documents warranted projects for adding SOV capacity and also documents that regional and/or project-specific alternatives such as Transportation Demand Management measures, High Occupancy Vehicle measures, Transit Capital Improvements, Congestion Pricing, Growth Management, and Incident Management would not obviate the need for adding SOV capacity. Planned projects resulting from the CMS are documented in the annual CMS status report referenced above.

Reasonable project-specific CMS strategies, including Traffic Operational Improvements, Transit Operational Improvements, Non-motorized modes/measures (Pedestrian/Bicycle), Intelligent Transportation System (ITS), and Access Management, have been incorporated into this project to the extent practical. Specific strategies incorporated include [list the strategies (as described in the CMS Handbook) such as adding turning lanes, modernizing signals, signal interconnect, ITS (adding dynamic message signs, highway advisory radio, fiber optic, etc.), sidewalk/bicycle accommodations, access consolidation, and/or barrier median to control access, etc.].[Add the following, if applicable:] With respect to Transit Operational Improvements, coordination occurred with [PACE/Metra/CTA

or Madison County, St. Clair County, and Bi-State Regional Transportation]. Based on this coordination the following transit improvements were included in the project: [briefly describe any included transit projects and reference pertinent correspondence].

As documented in the above information, this project results from the CMS for [Northeastern Illinois or the Metro East Area] as a warranted project for adding SOV capacity and all reasonable congestion management strategies have been incorporated into the project to sustain its effectiveness.

24-3.07 Environmental Consequences

References: 40 CFR 1502.16 Objectives of Environmental Consequences Discussion

40 CFR 1508.8 Direct and Indirect Effects

Paragraph II.D. of FHWA Technical Advisory T6640.8A Impacts Discussion

Question 7. of CEQ Q&A Relationship Between Alternatives and Environmental

Consequences Sections

Chapter 26 Special Environmental Analyses

Chapter 27 Environmental Surveys

24-3.07(a) General

The results of the environmental analyses for the proposed action should be summarized in the Environmental Consequences Section. Information should be organized by impact category rather than by alternative. For each issue area in which the project will have an impact, the discussion should address (1) the probable impacts of each alternative and (2) (where appropriate) the mitigation proposed. The discussion should provide sufficient information to enable the reader to evaluate the significance of the impacts.

An exception to this organization is the discussion on the "no-action" alternative. This discussion should relate to the project's purpose and need and address the consequences of no action (e.g., accidents, economic development, air quality).

The discussion of impact categories in the following sections indicates the basic information necessary for addressing each subject. The Environmental Consequences Section should begin with the following paragraph:

The environmental inventory map (Exhibit _____) identifies all sensitive cultural, natural, physical, and socio-economic resources, and special waste sites in the study area. Resources potentially impacted by the proposed action or that require discussion pursuant to applicable laws and regulations are addressed in this Section.

The following sections discuss the types of issues and resources that often will be involved on projects for which an EA is appropriate. These topics and the suggestions for information to be provided are neither comprehensive nor applicable in all cases; they are offered as a guide. When a project involves an issue or resource not addressed in the subsections below, BDE should be contacted for guidance, as necessary. All analyses and discussions concerning environmental impacts should be supported by appropriate environmental studies.

24-3.07(b) Social/Economic

The following applies to the Social/Economic discussion:

- 1. <u>Community Characteristics and Cohesion</u>. Describe the project area community(ies) and neighborhood(s), including name and population. Discuss the potential for dividing or isolating communities or neighborhoods. See Section 2 of the *Socio-Economic Impact Assessment Manual* for definitions and impact assessment guidelines.
- 2. <u>Title VI and Other Protected Groups</u>. Consider the potential for impacts to ethnic, racial, or religious minorities or elderly/handicapped groups. See Section 2 of the *Socio-Economic Impact Assessment Manual* for definitions.
- 3. <u>Environmental Justice</u>. Executive Order 12898 "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" requires a heightened sensitivity for the needs and concerns of minority and/or low-income* groups during project planning. If a Federally funded project will affect either or both of these groups, a determination of whether there may be "disproportionately high and adverse effects"** should be made. The requirements of the Executive Order can be met with the identification of low-income and/or minority groups (approximate number and location) within a community who may be affected by a proposed project and the assessment of any disproportionately high impacts. Projects located within minority and/or low-income communities may require intensified public involvement activities to ensure local participation. The consideration of a full range of mitigation measures to reduce the adverse impacts is very important in these cases.

*"Low-income status" should be determined by referring to the Department of Health and Human services poverty guidelines, which are published annually in the Federal Register.

**"Disproportionately high and adverse impacts" are those which make some individuals or groups better off at the expense of minorities or low-income residents or communities. It has also been defined as an inequity resulting from a proposed action on a group protected under the Civil Rights Act of 1964. The impacts should be weighed on a case-by-case basis because some projects will affect only minorities or low-income groups. If disproportionately high impacts are expected, it is necessary to demonstrate that the project will fulfill a

substantial need and that measures to avoid or reduce the adverse impact are not practicable or would have other high adverse social, economic, or environmental impacts that are more severe or include costs of extraordinary magnitude. Offsetting mitigation and enhancement measures (including those developed during the public participation process) or any offsetting benefits that will accrue to the minority or low-income populations will be considered in any case of disproportionately high and adverse impacts.

- 4. <u>Public Facilities and Services</u>. Determine how the proposed project will affect community access, including pedestrian access to facilities (such as places of worship, schools, libraries, hospitals) or services (such as fire, police, or ambulance). See Section 2 of the *Socio-Economic Impact Assessment Manual*. Use of Section 4(f) properties should be discussed under Section 24-3.07(m).
- 5. <u>Change in Travel Patterns</u>. Describe whether traffic patterns will change after completion of the proposed project. Determine if this project will provide new access or eliminate access to an area. If yes, a discussion of anticipated impacts should be included. The assessment of travel pattern impacts should include all potential travel, including pedestrians, bicyclists, and persons with disabilities.

Where projects involve changes in access due to road closures, traffic detours, etc., the analysis and assessment of impacts should summarize:

- changes in neighborhood travel patterns;
- disruptive effects of traffic detours;
- "barrier" effects related to change in access for police, fire, and/or health services; and
- economic impacts on transportation-sensitive commercial or industrial activities.

This includes any divisions of neighborhoods, isolation of ethnic/elderly/handicapped populations, or "barrier" effects related to schools, churches, recreational, and other community facilities.

6. Relocations (Business and Residential). If relocations are involved, estimate the number and describe the types of buildings to be removed, including residential, commercial, and agricultural. The availability of replacement property in the project vicinity and the need for any special advisory services should be identified. This information should be summarized as illustrated in Figures 24-3B and 24-3C.

Alternative	Number Owned	Number Leased	Minority*	Elderly*	Low Income*
Alt. 1	2	1	1	0	0
Alt. 2	0	2	0	1	1
etc.					

^{*}If available from census data or visual inspection.

HOMES DISPLACED

Figure 24-3B

Alternative	Туре	Number	Number Minority Owned
1	Commercial Service	1 2	0 1
2	Commercial	3	1
3	Industrial	1	0

BUSINESSES DISPLACED

Figure 24-3C

The discussion on relocation impacts should include the following:

- a statement that the provisions of the "Uniform Relocation Assistance and Real Property Acquisition Policies Act" and the *IDOT Land Acquisition Procedures Manual* will be followed. Note: This statement is needed whenever land must be acquired for any purpose;
- a commitment to "provide housing of last resort, if necessary"; and
- a statement that the housing resources are available to all relocatees without discrimination.

Also see Section 3 of the Socio-Economic Impact Assessment Manual.

7. <u>Economic Impacts</u>. Discuss businesses within the project area in general terms. Discuss the potential for impacts to businesses, including revenue (sales tax loss), access changes, or parking loss. Major employers within the project area should be listed for larger projects that may have regional economic implications. If businesses are displaced, the number of people employed at each should be estimated. The necessity for conducting any of these assessments should be determined by the nature of the

projected impact in the area of the proposed project. See Section 4 of the Socio-Economic Impact Assessment Manual for impact assessment guidelines.

- 8. <u>Land Use</u>. Describe existing and planned land use adjacent to the roadway facility and indicate whether the proposed project is consistent with local/regional land use plans. Also discuss the effect of the proposed action on existing or planned land use in the community.
- 9. <u>Growth and Economic Development</u>. If economic development is included in the "Purpose and Need" for the project, the potential for project-induced economic development shall be described. In other cases, if the potential for economic development due to the project exists, it should be discussed. See Section 5 of the *Socio-Economic Impact Assessment Manual*.

24-3.07(c) Agricultural

Reference: Section 26-10 Evaluations of Farmland Conversion Impacts

The following pertains to the discussion of Agricultural resources:

- 1. <u>Farmland and Soils Identification</u>. In all cases, identify the total amount of farmland and estimate the amount of prime and important farmland to be converted to non-agricultural use. This should include the estimated conversion of agricultural land for borrow or contractor-use areas and other proposed mitigation efforts (e.g., wetland mitigation).
- 2. <u>Protected Agricultural Areas</u>. Identify any protected agricultural areas and include a discussion on avoidance or non-avoidance.
- 3. <u>Coordination</u>. Determine if coordination is required with the US Department of Agriculture, Natural Resources Conservation Service (NRCS), or the Illinois Department of Agriculture (IDOA). If coordination is required, indicate the agency and the basis for coordination. If coordination with the NRCS is required, a copy of the completed Form AD-1006 should be included as an exhibit. If coordination is not required, explain why.
- 4. <u>Impacts</u>. Summarize the results of the evaluation of farmland impacts and the results of coordination. Where possible, use tables and exhibits to illustrate impacts. The taking of a farm residence or known tax loss from right-of-way purchased should be discussed under the Social/Economic topic.
- 5. <u>Erodible Soils</u>. Based on the soil type and class information tabulated for Form AD-1006, discuss erodibility of the soils and methods likely to be used to control erosion.

24-3.07(d) Cultural

References: Section 26-2 Section 4(f) Evaluations

Section 26-5 Historic Act Compliance Documentation

The following applies to the discussion of Cultural Resources:

1. <u>Archaeological Sites</u>. If the project was signed-off by the Cultural Resources Unit, identify the date and use the language from the Cultural Resources Unit memorandum to explain why.

Based on the cultural resources survey results, determine if there are any potentially significant resources found to be in the project area. If no, identify the date of the State Historic Preservation Officer's (SHPO) sign-off and note that this completes the coordination process. If yes, note the type and number of resources, the nature of further field work required, and the date notified.

If the sites were avoided or cleared during the Phase II field evaluation, identify the date of the SHPO sign-off and note that this completes the compliance process. If no, Phase III excavation (data recovery) is required. A Statement of No Adverse Effect or a Memorandum of Agreement should be attached to the EA, and commitments to conduct archaeological field work after right-of-way purchase should be noted.

- 2. <u>Historic Bridges</u>. Determine if the project will affect a bridge listed in the Illinois Historic Bridge Survey. If not, coordination for compliance with Section 106 on historic bridges is not required, and this should be stated in the EA. If the project will affect a bridge on the Illinois Historic Bridge Survey (e.g., by rehabilitating, closing, moving, or removing the bridge), documentation of compliance with Section 106 will be required. Refer to BDE Technical Environmental Memorandum P-1-99 for details. For a finding of "no adverse effect," identify the date on which the Advisory Council on Historic Preservation approved the Statement of No Adverse Effect. For an "adverse effect" finding, identify the date of final signature of a Memorandum of Agreement and provide a brief summary of the mitigation required. If the project will adversely affect the historic integrity of a bridge on or eligible for the National Register of Historic Places (i.e., the factors that qualified it for eligibility), compliance with Section 4(f) also is required.
- 3. <u>Historic Districts & Buildings</u>. If the project is located within a historic district listed in the National Register of Historic Places or designated by local ordinance, coordination with the Illinois Historic Preservation Agency (IHPA) will be required. Coordination also will be necessary for any buildings over 50 years old directly or indirectly impacted by the project.

The district is required to take photographs (black-and-white or color) of buildings over 50 years old and buildings of uncertain age located on property in or adjacent to the proposed project. The photos should be submitted to the Cultural Resources Unit. If the

Cultural Resources Unit or the IHPA determines that no significant buildings will be impacted, the date of the sign-off should be noted in the EA.

If a building eligible for the National Register is located in the project impact area, the Section 106 process starting with State Historic Preservation Officer (SHPO) coordination must be initiated through the Cultural Resources Unit. The date of final approval of a Statement of No Adverse Effect or, for an adverse effect, of a Memorandum of Agreement and a brief summary of the mitigation should be included in the EA. If an adverse effect is involved, a Section 4(f) evaluation document will be required.

If more than one eligible site will be affected, the information should be presented as illustrated in Figure 24-3D.

	to map) Name	NRHP Status	Basis for National Register	Impacts	Effect
1	Jones house	Eligible	First settler in Illinois	 10 ft (3.0 m) of right-of-way from edge of property See noise receptor #1 for noise effects 	No adverse effect

Note: Where effects on these resources are involved, the FONSI request should provide either the approved Determination of No Adverse Effect or the executed Memorandum of Agreement for the undertaking. The FONSI generally will not be issued until coordination with the Advisory Council has been completed.

NRHP-ELIGIBLE RESOURCES

Figure 24-3D

24-3.07(e) Air Quality

Reference: Section 26-11 Air Quality Conformity Documentation

Illinois COSIM User's Manual

The following applies to the Air Quality discussion in the EA:

1. <u>Microscale Analysis</u>. Projects that will have an average daily traffic (ADT) volume of less than 16,000 by the end of the first year of operation are exempt from the requirement for a microscale Carbon Monoxide (CO) analysis. For these projects, enter the following paragraph in the discussion of environmental consequences:

In accordance with the provisions of an "Agreement on Microscale Air Quality Assessments for IDOT Sponsored Transportation Projects; Illinois Department of Transportation and Illinois Environmental Protection Agency," this project is exempted from a project-level carbon monoxide air quality analysis because it is a low-volume roadway with a forecasted average daily traffic volume of 16,000 or less vehicles at the end of the first year of project operation.

For projects that will have an ADT volume greater than 16,000 by the end of the first year of operation, an analysis for CO is required. A screening analysis should be used on applicable projects to determine if the action has potential to result in CO contributions that could cause a violation of the National Ambient Air Quality Standards (NAAQS). The *Illinois Carbon Monoxide Screen for Intersection Modeling* (COSIM) shall be used for the screening analysis on projects that fit the assumptions upon which the screening model was based. It will provide a "worst case" estimate of CO concentrations and will indicate whether further detailed air quality analysis is needed. If the screening analysis indicates that the action "passes" (i.e., that it does not have potential for causing a violation of the NAAQS for CO), further air quality analysis is not required. Include the following paragraph in the environmental consequences discussion:

The air quality effects of the proposed project were analyzed using the Illinois Carbon Monoxide Screen for Intersection Modeling (COSIM). The "worst case" analysis provided by the COSIM model indicated that the proposed undertaking does not have the potential for contributing to a violation of the National Ambient Air Quality Standard for CO. CO concentrations for the worst case receptor were as follows:

Existing ([year]) - ____ ppm; Build - Time of Completion (TOC) ([year]) - ____ ppm, TOC + 10 years ([year]) - ____ ppm, and Design Year ([year])- ____ ppm; No Action - ____ ppm in [TOC year], ____ ppm in [TOC +10 year], and ppm in [Design Year].

If the screening analysis indicates the project "fails" (i.e., that it has potential for contributing to a violation of the NAAQS for CO), or if the project does not fit the assumptions for use of the screening analysis, a detailed air quality analysis is required. The worst-case location and calculated eight-hour results of this analysis should be described, following the guidance in the *IDOT Air Quality Manual*. The latest USEPA Mobile model should be used for emissions factors. Comparison of these results to the National Ambient Air Quality Standards (NAAQS) for CO shall determine whether the project supports the maintenance of the CO NAAQS in Illinois. Analysis results below the eight-hour CO NAAQS (less than 9 ppm) will indicate no impacts present to the local atmospheric conditions that are necessary to protect the public health and welfare. Analysis results above the eight-hour CO NAAQS will indicate impacts present, which will require mitigation measures to be discussed with FHWA, USEPA, and IEPA. Any such mitigation measures should be described in the EA.

 Air Quality Conformity Statement. A determination must be made as to whether the highway project is located wholly or partially in a portion of the State classified by the USEPA as a nonattainment area for any of the six criteria pollutants (40 CFR Part 81). This determination should be made and documented in accordance with the procedures in Section 26-11.

24-3.07(f) Noise

Reference: Section 26-6 Noise Analyses

Determine if the highway project is required to have a traffic-generated noise analysis. See Section 26-6.

If an analysis is required, the EA should summarize the locations of predicted traffic noise impacts, the context of the noise impacts, and the preliminary likelihood of noise abatement measures being incorporated in the project or the reasons for which no apparent noise impact solution is available.

For most projects processed with an EA, analysis of ten or fewer sensitive receptors will generally be adequate for determining the locations of predicted traffic noise impacts. In many instances, two to three receptors will be sufficient. A table to present the results of the existing and future build and no-action traffic-generated noise levels is encouraged to clarify the context of the noise impacts and to easily identify predicted changes. Figure 24-3E illustrates an example.

Results of the noise abatement analysis must be presented for receptors where the predicted noise level approaches or exceeds the NAC or where a substantial increase is predicted. This information should be summarized as illustrated in Figure 24-3F.

The following statement should be included in this Section of the EA:

Construction noise will be controlled in accordance with article 107.35 of the Standard Specifications for Road and Bridge Construction.

Receptor (keyed					Pre	edicted
To a map)	Туре	Represents	NAC*	Existing	Build	No-Action
1	Residential	12 homes	67dBA	65dBA	66dBA	67dBA
2	Commercial	3	72dBA	70dBA	74dBA	70dBA
etc.		businesses				

^{*}Noise Abatement Criterion

NOISE LEVELS

Figure 24-3E

		Barrier		Reduction	Likely to be	If No,
Receptor	Height	Length	Cost	Potential	Implemented	Reasons Why
1 etc.	18 ft (5.5 m)	800 ft (245 m)	\$	8dBA	No	Construction of an effective barrier would require closure of neighborhood access street, which is opposed by the city/neighborhood representatives.

NOISE ABATEMENT

Figure 24-3F

24-3.07(g) Energy

Use the following statement when addressing energy:

Construction of the proposed <u>(Route)</u> improvement will require indirect consumption of energy for processing materials, construction activities, and maintenance for the lane miles (kilometers) to be added within the project limits. Energy consumption by vehicles in the area may increase during construction due to possible traffic delays.

Construction of the proposed improvement will reduce traffic congestion and turning conflicts along the route and thereby reduce vehicular stopping and slowing conditions. Additional benefits would be realized from increased capacity and smoother riding surfaces. This will result in less direct and indirect vehicular operational energy consumption for the build alternative than for the noaction alternative. Thus, in the long term, post-construction operational energy requirements should offset construction and maintenance energy requirements and result in a net savings in energy usage.

The following should be added when applicable:

The project includes provisions for improved bicycling and walking conditions, thereby encouraging travel by these non-motorized and thus non-energy consuming modes of transportation.

Energy impacts should only be presented if it is an issue of concern in the project area or if substantial differences between alternatives are anticipated.

24-3.07(h) Natural Resources

Reference: Section 26-9 Threatened and Endangered Species/Natural Area Impact

Assessments

These include threatened and endangered species, upland vegetation/habitat, nature preserve/forest preserve/natural area. Note any natural resource areas identified during a field survey performed by district/consultant staff. Identify date of field survey and discuss findings.

Determine if the submittal of an Environmental Survey Request (ESR) is required. See Chapter 27. If it is, identify the date the survey request was submitted and explain why. If it is not, identify the date it was determined not to be necessary and explain why.

If the project was submitted to the Illinois Department of Natural Resources (IDNR) for screening against the information in the Illinois Natural Heritage Data Base, per the IDNR/IDOT coordination agreement, identify the date the consultation with IDNR was completed and include a copy of the Agency Action Report form in the EA. If an ESR was submitted to BDE and was determined not to require submittal to the IDNR per the coordination agreement, identify the date of, and include the language from, the Biological Resources memorandum.

If surveys were performed, indicate the date of the surveys and the resources identified. The description of resources should include location (i.e., proximity to project site), area, quality, and type of upland forests, riparian forests, prairie remnants, areas of relatively high biological diversity, natural areas, nature preserves, Federal and State-listed species, and sensitive streams (see "Water Quality" section). The impact to the resources and the sensitivity of the resources to the impacts should be described. For impacts to threatened and endangered species or natural areas, the discussion must indicate why the impacted resource cannot be avoided, the measures that have been taken to minimize the adverse impact through project modification, and the appropriate and practical compensatory mitigation for the unavoidable resource losses (i.e., construction time limits/fencing, transplanting, relocation, restoration, erosion control measures, etc.). Use information from the Biological Resources memorandum and reports from the Illinois Natural History Survey or other documentation. Identify the date and results of coordination with the US Fish and Wildlife Service (USFWS), National Park Service, IDNR, Illinois Nature Preserves Commission, etc., as appropriate, and indicate why the coordination was necessary. If no resources were involved, indicate the date and use the language from the Biological Resources memorandum to explain why.

If applicable, a statement and/or table should be included indicating the number of acres (hectares) of each vegetation type or land use which would be modified (e.g., would become paved areas or vegetated right-of-way) by the proposed project. This information should be summarized as illustrated in Figure 24-3G.

Cover Type	Acres (Hectares) Converted to Paved or Other Unvegetated Uses	Acres (Hectares) Converted to Vegetated ROW	Total Acres (Hectares) Converted
Upland Forest	2 (0.8)	3 (1.2)	5 (2.0)
Forbland	1 (0.4)	2 (0.8)	3 (1.2)
Cultivated Land	10 (4)	10 (4)	20 (8)

VEGETATION IMPACTS

Figure 24-3G

Determine if a Biological Assessment or Detailed Action Report for threatened and endangered species or natural areas(s) is required. If it is, summarize the information regarding the species/natural area involved, the impact, and the mitigation. Cite compliance form or letter for the Illinois Endangered Species Act and Illinois Natural Areas Preservation Act requirements and the Federal USFWS Opinion, as appropriate. If the project will require an authorization for incidental taking of a listed species, include a statement to that effect in the natural resources discussion and indicate that the authorization will be obtained prior to award of the contract for the work that would cause the incidental taking. Also provide information describing the nature of the incidental taking, the species involved (including an indication of whether the species is Federally-listed, State-listed, or both), and the measures for minimizing and mitigating the effects of the taking on the listed species. If a Biological Assessment or Detailed Action Report is not required, cite results of coordination with USFWS for Federally-listed species and the IDNR Agency Action Report form/coordination letter for State-listed species or natural areas.

The number of trees removed should be indicated. This can be determined by an actual count or by estimation based on a sample.

24-3.07(i) Water Quality/Resources

Reference: Chapter 28 Environmental Permits/Certifications

1. <u>Water Resources</u>. Identify, by name, the water resource(s) (including streams, ponds, lakes, etc.) in the project area. Indicate flow regime (permanent or intermittent) and upstream watershed area (in acres [hectares]).

Determine if the resource is a wild and scenic river, candidate for wild and scenic river status, navigable river, Illinois natural area, Illinois nature preserve, or threatened and endangered species habitat. This information should be obtained from the Biological

Resources Review Memorandum. Navigable waters are listed in the *IDOT Water Quality Manual*.

Determine if there are any "sensitive" water resource(s) (public water supply, groundwater recharge area, high-quality stream) in the project area. If a Preliminary Environmental Site Assessment (PESA) is prepared for the project, it will identify these types of resources. If a PESA is not prepared, the district should obtain this information from such literature sources as the Illinois water quality report, IEPA/IDNR Biological Stream Characterization methodology, Potential for Aquifer Recharge in Illinois map, Biologically Significant Illinois Streams Report, or correspondence with State agencies (IEPA, IDNR).

2. <u>Surface Water Quality</u>. The purpose of this discussion is to describe the existing water quality conditions and establish the sensitivity of the resource, to identify the type and degree of impact which could potentially occur, and to identify the impact mitigation measures. The information on existing water quality can be obtained from USGS water resource data, the Illinois water quality report, or USEPA STORET data system.

Describe the proposed work (such as cofferdams, channel changes, channel excavation, construction haul roads, work pads, causeways, wing dams, dams, riprap placement, bank excavation, abutment construction, low-water crossings, etc.) in, over, and adjacent to the water resource(s). Discuss probable direct impacts to water quality of the resource(s), both during and after construction. Include the probable effects on plants, animals, and fish inhabiting or dependent upon the water resource. Describe the proposed measures to minimize adverse effects or to enhance beneficial effects, including any special erosion control measures that may be appropriate in addition to normal erosion control practices.

Discuss the potential for surface water quality impacts from the operation of the roadway. Roadway operation includes vehicular use and maintenance practices. Highway runoff pollution may affect water quality of receiving waters through shock or acute loadings and through chronic effects from long-term accumulation within the receiving water. The significance of these impacts is very site-specific and will depend heavily on the characteristics of the highway and receiving waters. Research indicates few significant impacts for highways with less than 30,000 ADT. Potential impacts are generally short-term, localized, acute loadings from temporary water quality degradation with few, if any, chronic effects. Identify any location where roadway runoff may have an adverse impact on receiving waters. Identify the potential mitigation measures to moderate the adverse impact.

The 1996 FHWA research report "Evaluation and Management of Highway Runoff Water Quality" contains procedures for estimating pollutant loading from highway runoff. The report may be helpful in determining the level of potential impacts and appropriate mitigation measures.

Any work requiring an individual Section 404 or a bridge permit should be discussed. If an individual Section 404 permit will be required, the US Army Corps of Engineers and US Environmental Protection Agency <u>must</u> be requested to be Cooperating Agencies. Activities covered by a nationwide permit also should be listed by location and type of work and nationwide permit type. It should be noted that all Section 404 permits will require water quality certification from the IEPA.

A National Pollutant Discharge Elimination System (NPDES) permit is required if five acres (two hectares) or more of surface area* are disturbed. If an NPDES construction permit is required, the following paragraph should be incorporated into the EA:

It is anticipated this project will result in the disturbance of five or more acres (two or more hectares) of total land area. Accordingly, it is subject to the requirement for a National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharges from the construction sites. Permit coverage for the project will be obtained either under the IEPA General Permit for Stormwater Discharges from Construction Site Activities (NPDES Permit No. ILR10) or under an individual NPDES permit. Requirements applicable to such a permit will be followed, including the preparation of a Stormwater Pollution Prevention Plan. Such a plan shall identify potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges from the construction site and shall describe and ensure the implementation of practices which will be used to reduce the pollutants in discharges associated with construction site activity and to assure compliance with the terms of the permit.

*Note: Effective March 10, 2003, projects that will result in a disturbance of less than five acres (two hectares) and more than one acre (4047 m²) of land surface will be subject to the NPDES permit requirements for stormwater discharges from construction sites. For projects that will exceed the one acre (4047 m²) disturbance threshold and that will be under construction on or after March 10, 2003, the NDPES permit paragraph should be included with a revised first sentence indicating that the project will result in the disturbance of more than one acre (4047 m²).

3. <u>Groundwater Quality</u>. Include a statement on whether there are any designated sole source aquifers in Illinois and whether the project would affect them. Cite the source and date of the information upon which the statement is based. (Groundwater resource information for Illinois is available on the USEPA web site at the following address: http://www.epa.gov/OGWDW/swp/sumssa.html.). If the project will not create any new potential "routes" for groundwater pollution (e.g., dry wells, borrow pits) or any new potential "sources" of groundwater pollution (e.g., bulk road oil or deicing salt storage facilities), include the following statements:

This project will not create any new potential "routes" for groundwater pollution or any new potential "sources" of groundwater pollution as defined in the Illinois Environmental Protection Act (415 ILCS 5/3, et seq.). Accordingly, the project is not subject to compliance with the minimum setback requirements for community water supply wells or other potable water supply wells as set forth in 415 ILCS 5/14, et seq.

If the project creates any new potential "route" or "source" for groundwater pollution, describe the nature of the "route" or "source" and indicate whether it will be within a setback zone (minimum or maximum) for a water supply well. Also indicate the type of well (e.g., community water supply, private water supply) and discuss any permits or mitigation measures that may be needed for the "route" or "source." The minimum setback distance for a potable water supply well is 200 ft (60 m) or 400 ft (130 m) for a community water supply well with high to moderate geologic susceptibility. Maximum setback zones for community water supply wells may be up to 1000 ft (300 m) from the wellhead or, in rare cases, up to 2500 ft (760 m). Indicate whether the project is within a regulated recharge area.

In addition, include a statement on whether the project may cause any violation of groundwater quality standards. Consider whether the project would create any new potential "routes" or "sources" for groundwater pollution. Consider the projected traffic and the filtering effects of any retention or detention facilities or grassed drainage ways that would be provided, and the filtering effects of the underlying geology. Where a project will not cause a violation of surface water quality standards, modeling results have indicated it is generally unlikely that the project will cause a violation of groundwater standards, due to the filtering effects of grassed drainage ways, retention/detention facilities, and/or the underlying geology. Studies have shown that grassed drainage ways can remove up to 83% of the suspended solids, which account for most of the pollutants in highway runoff. Retention/detention facilities have been shown to be capable of removing up to 90% of the suspended solids.

24-3.07(j) Flood Plains

References: Section 26-7 Flood Plain Finding

Chapter 28 Environmental Permits/Certifications

Describe the natural and beneficial flood plain values within the project vicinity. Describe the work within the flood plain and the impacts to these flood plain values. The approximate limits of the flood plain(s) in the project area should be delineated on a map. Any encroachment(s), including longitudinal or transverse, should be presented. Maps from the National Flood Insurance Program must be used, if available.

Indicate whether the work is within the 100-year flood plain and whether it is a transverse or longitudinal encroachment (include the length of the encroachment). Identify the FEMA map

and include the date. As a summary, use one of the six category statements contained in Section 26-7.

For each alternative encroaching on a designated or proposed regulatory floodway, the district office should coordinate with the Bureau of Bridges and Structures to obtain information regarding flood profile and waterway opening for any structures involved. The district must then determine if the encroachment is significant and whether it would be consistent with the regulatory floodway. If the preferred alternative involves a significant encroachment, include in the EA the finding required by Executive Order 11988 and 23 CFR 650 Subpart A, that there is no practicable alternative to construction in flood plains (see Section 26-7). If the preferred alternative encroaches in a regulatory floodway and mitigation is required, the EA should describe the mitigation. An IDNR/OWR permit is required for construction within a regulatory floodway (see Chapter 28).

24-3.07(k) Wetlands

References: Section 26-8 Wetlands Analyses and Findings

Chapter 28 Environmental Permits/Certifications

Identify the location, type, and area of wetlands impacted (directly and indirectly) by the proposed action. Determine the importance of the impacted wetlands and the severity of the direct and indirect impacts. Include area and functional values of wetlands lost. Figure 24-3H illustrates an example presentation.

Wetland Site (keyed to map)	1
NWI Classification	PFO1A
Dominant Vegetation	Silver maple
Floristic Quality Index	10.8
Soil Type	Amy Loam
Wetland Hydrology	Standing Water
Wetland Size (Acres [Hectares])	10.3 (4.2)
Acres (Hectares) Affected	2 (0.8)
Minimization Measures	Steepen fill slopes

WETLANDS IMPACTS

Figure 24-3H

The discussion must indicate why the impacted wetlands cannot be **avoided**, the measures that have been taken to **minimize** the adverse impact through project modification, and the appropriate and practicable compensatory **mitigation** to replace the unavoidable wetland losses. The discussion should also identify those alternatives which avoid wetlands impacts.

Summarize the coordination efforts with the regulatory and natural resource agencies. Determine if there are any unresolved wetland issues.

Any work in wetlands requiring an individual or nationwide 404 permit should be briefly described as to location and nature of work and, for nationwide permits, the applicable nationwide permit type should be indicated.

If wetland mitigation is required, the following information should be provided:

- the location and size of the mitigation site;
- the compensation matrix (on-site/off-site, in kind/out of kind, in basin/out of basin);
- type of plant community(ies) to be restored or created; and
- the preliminary approval of the mitigation site and plan by BDE and the IDNR.

If the preferred alternative is located in wetlands and there are no practicable alternatives to construction in wetlands, the following additional items must be included in the FONSI for the project to support an "Only Practicable Alternative Finding":

- a reference to Executive Order 11990;
- an explanation why there are no practicable alternatives to the proposed action (including a reference to the results of coordination with the US Fish and Wildlife Service and the IDNR, as appropriate);
- an explanation why the proposed action includes all practicable measures to minimize harm to wetlands (including a reference to the results of coordination with the US Fish and Wildlife Service and the IDNR, as appropriate);
- a concluding statement that: Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

24-3.07(I) Special Waste

Reference: Section 27-2 Special Waste Procedures

Note: These procedures use the collective term "special waste," from the Illinois Environmental Protection Act (415 ILCS 5/3.45), which includes hazardous waste, potentially infectious medical waste, and industrial process waste or pollution control waste, subject to certain exceptions (see Section 27-2). Contaminated soils that meet the exemption from classification as a "special waste" are still considered to be a "regulated substance" and will be regulated as a

solid waste. Involvement with such contamination will be addressed as a part of the BDE Special Waste Procedures.

This section must appropriately document the project involvement with sites potentially impacted with regulated substances. The following paragraphs provide suggested statements for documenting the various outcomes of the Special Waste Procedures (see Section 27-2) in the Environmental Consequences section. When a project involves more than one build alternative, the statements should be modified to address the findings for specific alternatives (refer to Section 25-3.09(I)). The following applies:

1. If application of the SWA screening criteria resulted in a finding that the project has no potential for involving sites potentially impacted with regulated substances, include in the coordination exhibits, a copy of the SWA screen/survey request form signed and dated by the individual who completed the form. Also include the following statement in the Environmental Consequences section:

Special Waste

The project will not involve nor impact any CERCLIS sites nor other sites potentially impacted with regulated substances.

2. If the Preliminary Environmental Site Assessment (PESA) resulted in a finding that the project is "no risk" or "low risk" for involvement with sites potentially impacted with regulated substances, indicate the PESA number(s) and reference the PESA information on file documenting the "no risk" or "low risk" determination. Also include the following statement in the Environmental Consequences section:

Special Waste

The project will not involve nor impact any CERCLIS sites nor other sites potentially impacted with regulated substances or the involvement will be at an acceptable risk level to the Department.

3. If the PESA resulted in a finding that the project is "moderate risk" or "high risk" for involvement with sites potentially impacted with regulated substances and the district has determined it can avoid the site(s), include in the coordination exhibits a copy of the PESA response form on file with the BDE. Also include the following statement in the Environmental Consequences section:

Special Waste

The project will not involve nor impact any CERCLIS sites nor other sites potentially impacted with regulated substances.

4. If the PESA resulted in a finding that the project is "moderate risk" or "high risk" for involvement with sites potentially impacted with regulated substances and the district cannot avoid the site(s), include in the coordination exhibits, a copy of the last response from BDE regarding the sites impacted with regulated substances (e.g., a determination that the project qualifies as a Risk Managed Project, a waiver on waiting for the results of further investigations). Also include the following statements, as appropriate, in the Environmental Consequences section:

[Either]

No CERCLIS site(s) will be involved nor impacted by the project. [or]

A CERCLIS site(s) will be involved with the project but there is no prudent or feasible alternative for avoidance. The site(s) [do/do not] include identified hazardous wastes. The nature and extent of the involvement with the CERCLIS site(s) are known, all areas of contamination will be addressed to protect human health and the environment in accordance with applicable Federal and State laws and regulations, and all risks and liabilities (costs, etc.) of the involvement are known and are acceptable to the Department.

A Preliminary Environmental Site Assessment for special waste was conducted by the [Illinois State Geological Survey/district, as appropriate]. The assessment concluded that the build alternative could involve sites potentially impacted with regulated substances. Further, it has been determined that not all of the sites can be avoided. The sites which cannot be avoided include [describe and reference to locations on an exhibit]. (If sites containing hazardous waste will be affected, describe them first.) [Some/all] of the sites involve petroleum contamination from leaking underground storage tanks. [If applicable] Sites which involve types of contamination other than petroleum include [describe sites, locations, and type of contamination]. The nature and extent of the involvement are known and the areas of contamination, involving approximately [indicate estimated quantities involved], will be managed and disposed of in accordance with applicable Federal and State laws and regulations and in a manner that will protect human health and the environment. The quantities to be disposed are not expected to have a significant effect on landfill capacity.

24-3.07(m) Special Lands

References: Section 26-3 Section 6(f) Conversion Request

Section 26-4 OSLAD Land Conversion Request

The following applies to the Special Lands portion of the EA:

24-3(30)

- 1. <u>6(f)</u>. Determine if the project will involve use of lands that have Land and Water Conservation (LAWCON) funds involved in their purchase or development. If yes, describe the involvement and the replacement land and provide the date of the National Park Service approval of the Section 6(f) land conversion request.
- Open Space Lands Acquisition and Development (OSLAD) Act Lands. If the project will
 involve use of lands that had OSLAD funds involved in their purchase or development,
 describe the involvement and the replacement land and indicate the date of IDNR
 approval of the OSLAD land conversion request.

24-3.07(n) Permits/Certifications Required

Reference: Chapter 28 Environmental Permits/Certifications

This section of the EA should list the permits and certifications required for the project and should reference the section(s) and subsection(s) where the related permit/certification issues are discussed.

24-3.07(o) Other Issues

Examples include:

- equestrian facilities,
- aesthetics (visual impacts) (see Chapter 59), and
- construction impacts.

Discuss these issues in the EA as appropriate (i.e., when the project will affect equestrian facilities or where visual impacts of the project have been identified as a concern through the coordination/public involvement process).

To the extent that the *IDOT Standard Specifications* or Recurring Special Provisions address measures for mitigating anticipated construction-related environmental impacts, these specifications and provisions should be noted as a part of the discussion. Examples include the specifications concerning erosion control; protection of aboriginal records and antiquities; protection of streams, lakes, reservoirs, natural areas, wetlands, prairie areas, savannas, and threatened and endangered species; forest protection; and construction noise restrictions.

24-3.08 Comments and Coordination

References: 40 CFR 1503 Inviting and Responding to Comments

Paragraph II.E. of FHWA Technical Advisory T6640.8A Documentation of

Comments and Coordination

In addition to the information in the cited references, this Section should include letters or other correspondence documenting final recommendations/findings (e.g., "no-effect" determination by the SHPO). This Section should not contain copies of non-essential internal memoranda (e.g., coordination meeting minutes), transmittals, nor hearing transcripts.

24-3.09 Appendices

References: Paragraph II.F. of FHWA Technical Advisory T6640.8A Objectives of Appendices

Question 25. of CEQ Q&A Use of Appendices

In most cases, appendices are not necessary. If necessary, see the cited references.

24-3.10 Section 4(f) Evaluation

References: 23 CFR 771.135 Section 4(f) Procedures

Paragraph II.G and Section IX of FHWA Technical Advisory T6640.8A Section

4(f) Evaluation

Section 26-2 Section 4(f) Evaluations

When Section 4(f) resources are involved, the EA should contain a separate heading entitled "Section 4(f) Evaluation." This Section should not repeat information contained in the EA. Rather, information should be included by reference only.

If the project will involve use, including constructive use, of land from a significant publicly owned park, recreational area, or wildlife and waterfowl refuge, or any land from a historic site of national, State, or local significance, either a programmatic or an individual Section 4(f) Evaluation may be required (see Section 26-2). If temporary use of 4(f) land is involved and meets the conditions for exclusion from 4(f) applicability (see Appendix A, Section 4(f) Background/Q&A), identify the use, document the response to each of the conditions, and indicate the date of FHWA concurrence that a 4(f) use does not apply.